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## A New Genus and Species of the Family Ciidae (Coleoptera) from Southwest Japan

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**Abstract** A new ciid genus, *Dichodontocis*, is established based on a new species, *D. uncinatus*, from Southwest Japan. Discussion is given on affinities of the new genus.

Key words: Coleoptera; Ciidae; new genus; *Dichodontocis uncinatus*; Japan.

Recently, a new ciid beetle was discovered in the evergreen broadleaved forests of Cape Ashizurimisaki and Yakushima Island, Southwest Japan. It belongs to the tribe Ciini of the subfamily Ciinae because of the globulous procoxae and the presence of the metasternal medio-longitudinal groove (LAWRENCE, 1971). It is, however, unique in the combination of the 10-segmented antennae, the bidentate apex and the serrated outer margin of protibiae, and the lamellated prosternal process. It cannot be assigned to any other known genera of the tribe Ciini, so that a new genus should be established for it.

All the type specimens to be designated in this paper are deposited in the collection of the Entomological Laboratory, College of Agriculture, Ehime University, Matsuyama, Japan.

### *Dichodontocis* gen. nov.

Body oblong, strongly convex, parallel-sided; vestiture short and dual, consisting of both erect and inclined bristles. Head moderately declined, not concealed by pronotum as seen from above, maxilla with galea semicircular and bearing somewhat slender bristles, inner margin of lacinia curved; maxillary palpus 4-segmented, with terminal segment moderately robust; genal ridge distinctly carinate. Antennae 10-segmented; 8th to 10th segments forming a loose club, each segment of the club provided with four sensillifers, of which at least one is not equidistant from the apex to the others. Pronotum remarkably convex, narrowly margined around; anterior angles obtusely angulate. Scutellum small. Elytra with dual-sized punctures; suture margined posteriorly, but not inflexed at apex. Hind wings fully developed; anal vein absent. Prosternum in front of coxae shorter than prosternal process, transversely excavated, slightly tumid along the median line, and on the same level as prosternal process; prosternal process reduced into a very thin lamella; procoxae globular. Metasternum rather convex in the middle. Protibiae serrate

on outer margin, and acutely bidentate at outer apical angle; outer apical angle of meso- and metatibiae slightly expanded, rounded, and bearing spines, outer margin of meso- and metatibiae without spines. Tarsal formula 4-4-4 in both sexes. Abdominal fovea of male present.

*Type species.* *Dichodontocis uncinatus* sp. nov.

*Comparative notes.* The present new genus, *Dichodontocis*, belongs to the tribe Ciini of the subfamily Ciinae (LAWRENCE, 1971). It is distinguished from the other known genera by a combination of the following characters: antennae 10-segmented with a 3-segmented loose club; terminal segment of each antenna furnished with four sensillifers of which at least one is not equidistant from the apex to the others; anterior angles of pronotum obtusely angulate; elytra covered with dual-sized punctures; anal vein of hind wings absent; prosternum in front of coxae excavated and slightly tumid along the median line; prosternal process reduced into a very thin lamella; outer apical angle of protibiae bidentate; outer margin of protibiae serrate.

*Dichodontocis* is allied to *Ceracis* MELLÉ, *Odontocis* NAKANE et NOBUCHI, *Wagaicis* LOHSE, *Paraxestocis* MIYATAKE, and *Porculus* LAWRENCE, in the feature of prosternal process (MELLÉ, 1848; NAKANE & NOBUCHI, 1955; LOHSE, 1964; MIYATAKE, 1954; LAWRENCE, 1967, 1987). In the first three genera, however, the apex of each protibia is spinose and roundly produced outward. In *Paraxestocis*, the protibia is expanded apically and its outer margin is furnished with spines, and the prosternum in front of coxae is carinate along the median line. In *Porculus*, the tibial structure is also similar to that of *Dichodontocis*, but in the former the prosternum in front of coxae is not on the same level as the prosternal process.

The present new genus may be allied to *Euxestocis* MIYATAKE and *Neoennearthron* MIYATAKE in the features of the protibiae, but these two genera have relatively thick (not so thinly lamellate) prosternal process (MIYATAKE, 1954). In *Euxestocis*, the prosternum in front of coxae is carinate along the median line, while in *Neoennearthron* the antennae are 9-segmented with its terminal segment bearing four sensillifers, one of which is situated at the apex. The vestiture of above-mentioned seven genera except for *Dichodontocis* consists of fine and minute hairs which are not visible under low magnification.

### *Dichodontocis uncinatus* sp. nov.

[Japanese name: Nokoashi-tsutsukinokomushi]

(Figs. 1-10)

*Holotype (Male).* Length (excluding head): 1.63 mm; breadth: 0.69 mm.

Body oblong, 2.37 times as long as elytral breadth; strongly convex. Color reddish black; head and pronotum black, though their anterior areas are tinged with reddish; antennal clubs, gular portion, apical marginal area of elytra, and legs reddish brown; mouthparts, antennal funicles, and tarsi yellowish brown. Hairs yellow, short, suberect, moderate in density; elytral hairs regularly aligned, dual in size,

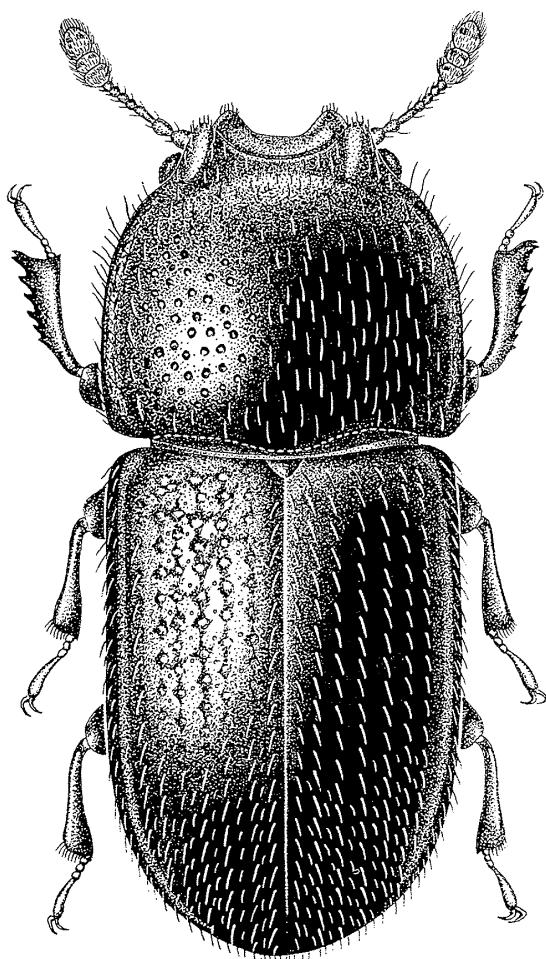


Fig. 1. *Dichodontocis uncinatus* gen. et sp. nov., holotype.

the longer almost as long as the longitudinal length of scutellum, the shorter similar in arrangement to those on other portion of body, predominant in apical half.

Head shagreened, relatively and largely exposed, partially visible from above, and moderately convex, though the vertex is definitely concave; frons broadly and shallowly concave at each side; frontoclypeal ridge produced and reflexed at each side, and forming two subtriangular processes with pilose apices, interspace between the processes as broad as the breadth of labrum. Antennae 10-segmented, 3rd segment slender, 1.8 times as long as 4th, 4th and 5th subequal, 6th and 7th weakly projected inward, and 7th slightly longer than 6th, 8th to 10th forming a loose club.

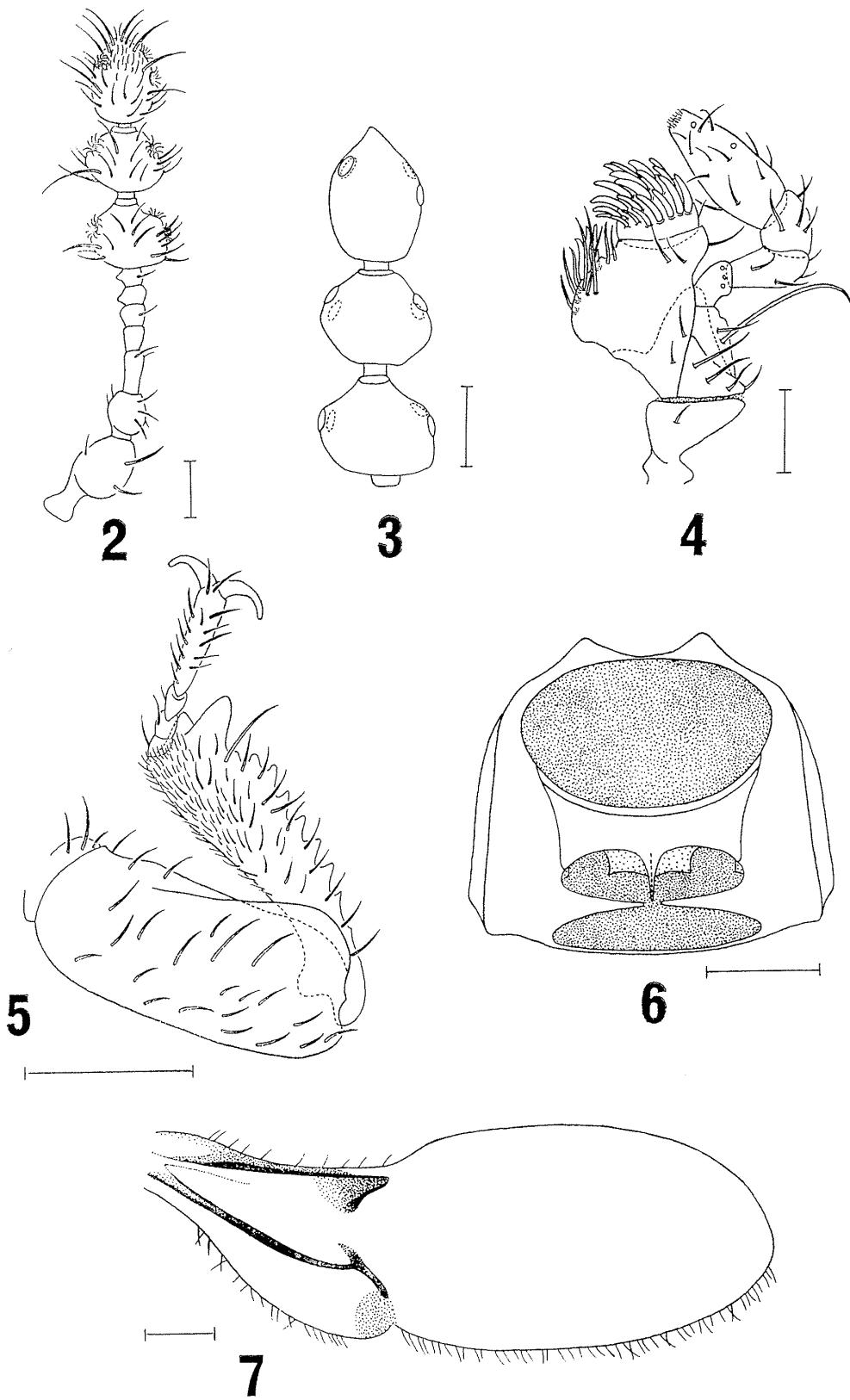
Pronotum including apical projections 0.91 times as long as broad; anterior margin produced forward and upturned into two small lateral projections, and

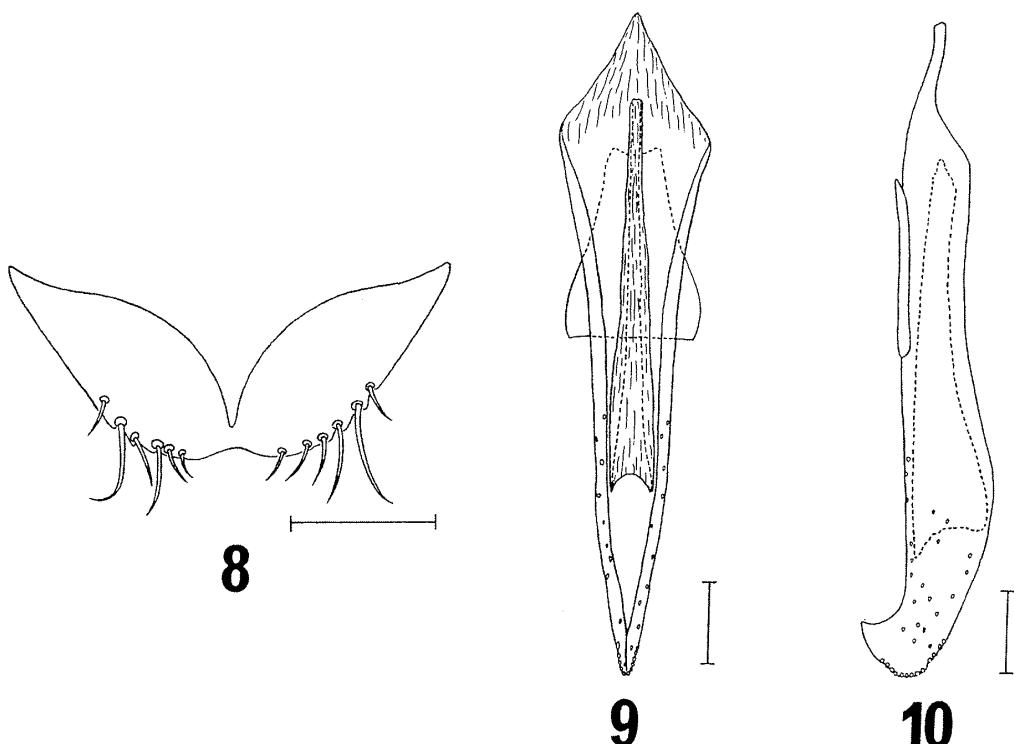
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Figs. 2-7. *Dichodontocis uncinatus* gen. et sp. nov. —— 2, Antenna; 3, antennal club; 4, maxilla, ventral view; 5, protibia, dorsal view; 6, prothorax, ventral view; 7, right hind wing. Scales for Figs. 2-4: 0.05 mm; 5-7: 0.2 mm.

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Figs. 8–10. *Dichodontocis uncinatus* gen. et. sp. nov. —— 8, Eighth abdominal sternite of male; 9, male genitalia, dorsal view; 10, male genitalia, lateral view. Scales: 0.05 mm.

arcuately emarginate between them; anterior angles forming an angle of about 155 degrees; lateral margins not entirely visible from above; posterior margin feebly bisinuous; posterior angles broadly rounded; dorsum irregularly covered with shallow and umbilical punctures, which are separated by a distance equal to one to two diameters, punctures of lateral portions bearing a short, erect hair, discontinuously fused to one another, and forming several gently arched parallel lines. Scutellum small, subtriangular, somewhat broader than long. Elytra 1.43 times as long as broad, and 1.54 times as long as pronotum, subparallel in basal two-thirds, then roundly narrowed toward apex; surface covered with dual-sized punctures, the larger punctures seriate and longitudinally fused to one another, bearing an erect and robust bristle, while the smaller punctures situated between the rows of the larger ones, bearing an inclined and fine hair.

Prosternum slightly tumid, transversely depressed before each coxa; prosternal process reduced into a very thin lamella and on the same level as prosternum; procoxal cavities narrowly opened posteriorly. Metasternum 1.52 times as broad as long, with medio-longitudinal groove 0.24 times as long as median length of metasternum. First abdominal sternite with a small, circular, and marginally pubescent fovea a little behind the middle.

*Male genitalia in paratypes.* Eighth abdominal sternite with the posterior

margin slightly emarginate at middle, with several short setiferous hairs on each side, anterior margin strongly emarginate, provided at middle with the hook for aedeagus; aedeagus 0.78 times as long as the length of visible portion of abdomen; tegmen gradually becoming narrower basally, with the basal end strongly bent like a hook; median lobe elongate, and becoming narrower anteriorly; basal piece weakly sclerotized, subtrapezoidal, much longer than broad.

*Female.* Frons slightly concave, frontoclypeal ridge slightly reflexed at the sides, but never forming subtriangular plates as in the male. Anterior margin of pronotum broadly rounded and without projections. First abdominal sternite devoid of pubescent fovea.

*Variation in a series of 24 paratypes.*

Male paratypes (n=12): Body length 1.29–1.59 mm ( $\bar{X}=1.48$ , S.D.=0.08); breadth 0.58–0.69 mm ( $\bar{X}=0.65$ , S.D.=0.03). Body length 2.21–2.34 ( $\bar{X}=2.27$ , S.D.=0.04) times as long as elytral breadth. Pronotum 0.79–0.97 ( $\bar{X}=0.90$ , S.D.=0.05) times as long as broad. Elytra 1.29–1.44 ( $\bar{X}=1.37$ , S.D.=0.05) times as long as broad, and 1.36–1.80 ( $\bar{X}=1.53$ , S.D.=0.13) times as long as the pronotal length.

In very small individuals, the frontoclypeal plates are very small, and the anterior margin of the pronotum is not emarginate but arcuately produced anteriorly.

Female paratypes (n=12): Body length 1.31–1.60 mm ( $\bar{X}=1.46$ , S.D.=0.08); breadth 0.58–0.71 mm ( $\bar{X}=0.64$ , S.D.=0.04). Body length 2.10–2.36 ( $\bar{X}=2.26$ , S.D.=0.08) times as long as elytral breadth. Pronotum 0.82–0.89 ( $\bar{X}=0.86$ , S.D.=0.02) times as long as broad. Elytra 1.32–1.50 ( $\bar{X}=1.41$ , S.D.=0.06) times as long as broad, and 1.58–1.78 ( $\bar{X}=1.68$ , S.D.=0.07) times as long as the pronotal length.

*Type series.* Holotype: ♂, Cape Ashizurimisaki, Kôchi Pref., Shikoku, 25–26. VI, 1989, M. KAWANABE leg. Paratypes: 8 ♂♂, 10 ♀♀, the same data as the holotype; 4 ♂♂, 2 ♀♀, Hanayamahodô-iriguchi, Yakushima Is., Kagoshima Pref., 23. IX, 1989, M. KAWANABE leg.

*Distribution.* Japan (Shikoku, Yakushima Is.).

*Host fungi.* *Fomitella rhodophaea* (LÉV.) AOSHIMA, *Phellinus* sp., and *Pereniporia* sp.

*Biological notes.* *Dichodontocis uncinatus* is often found in fruiting bodies of polyporaceous fungi together with *Euxestocis bicornutus* MIYATAKE.

According to my observation in breeding, this species is nocturnal.

*Etymology.* Generic name — Dicha, Gr., in two+odontos, Gr., tooth+Cis; masculine. The generic name is derived from the characteristic conformation of the protibiae whose external apex is bidentate. Specific name — uncinatus, Lat., barbed or hooked. The specific name is derived from the feature of the tegmen of the male genitalia.

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